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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,001	01/23/2004	Nicholas G. Duffield	Duffield 2003-0207	8944
<div>7590 Henry T. Brendzel P.O. Box 574 Springfield, NJ 07081</div>			<div>EXAMINER MAIS, MARK A</div>	
			<div>ART UNIT 2419</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 12/24/2008</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,001	<b>Applicant(s)</b> DUFFIELD ET AL.	
	<b>Examiner</b> MARK A. MAIS	<b>Art Unit</b> 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 19-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 8, 2008 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1 and 19-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford (USP 7,433,943).

4. With regard to claim 1, Ford discloses a method for assigning packets belonging to traffic of a network to different quality of service (QoS) treatments [**Figs. 1, 2, and 8, controlling traffic within a network**], comprising the steps of

receiving a packet that may be characterized by a plurality of attributes [**Figs. 1, 2, and 8, packet processor 130 within bandwidth management device 30 receives packets and checks source/destination IP addresses, col. 14, lines 26-31**] , and

assigning the packet to preselected QoS treatment from a set of QoS treatments, based on a preselected set of said attributes of the packet [**allows regular use or degrades network usage, col. 9, lines 27-32**], in accordance with a set of rules that was created pursuant to a statistical analysis of traffic in the network [**Figs. 1, 2, and 8, measurement engine 140 within bandwidth management device 30 samples data flows measuring bandwidth utilization with respect to a plurality of utilization statistics, col. 7, lines 54-59; each traffic class has bandwidth utilization controls, col. 9, lines 24-27**].

5. With regard to claim 19, Ford discloses that said set of rules is created to map each class of traffic [**traffic classes can grouped by application, protocol, IP address, Mac address, port, etc., col. 8, lines 11-15**] from a preselected set of traffic classes to specified QoS treatment [**policies are based on priority, rate, discard, and redirection, col. 7, lines 28-53; traffic**

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**classes are saved and matched with each data flow, col. 8, lines 43-46; traffic classes for known users, unknown users, and quarantined users, col. 9, line 66 to col. 9, line 5];**

said traffic classes are characterized by value ranges of one or more of said attributes [traffic classes range from known users, unknown users, and quarantined users, col. 9, line 66 to col. 9, line 5]; and

said characterization of said classes by said value ranges of one or more of said attributes is established through statistical analysis of a corpus of training traffic [Figs. 1, 2, and 8, measurement engine 140 within bandwidth management device 30 samples data flows measuring bandwidth utilization with respect to a plurality of utilization statistics, col. 7, lines 54-59; each traffic class has bandwidth utilization controls, col. 9, lines 24-27].

6. With regard to claim 20, Ford discloses that the statistical analysis that establishes said characterization identifies said value ranges that create groupings of said one or more of said attributes [traffic classes for known users, unknown users, and quarantined users, col. 9, line 66 to col. 9, line 5].

7. With regard to claim 21, Ford discloses that each class of traffic from said set of traffic classes comprises one or more applications taken from a set that includes interactive applications, bulk data transfer applications, transactional applications, and streaming applications [for example, PeopleSoft, col. 7, line 16; Napster, peer-to-peer sharing software, FTP, and HTTP, col. 9, lines 50-52].

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8. With regard to claim 22, Ford discloses 22. that the network is a target network that is part of a larger network, and said set of rules that map each class of traffic to specified QoS treatment is under control of an administrator of said target network [**Figs. 1, 2, and 8, Administrator interface 150 within bandwidth management device 30 and user management server 44 allows modification of network parameters, col. 5, lines 34-48 and col. 1-16**].

9. With regard to claim 23, Ford discloses that the corpus of training traffic includes traffic from more than said target network [**Fig. 8, traffic may be split into networks 47 and 48, col. 17, lines 32-47**].

10. With regard to claim 24, Ford discloses that the attributes are reflected in one or more fields in a header of said packet [**Figs. 1, 2, and 8, packet processor 130 within bandwidth management device 30 receives packets and checks the packet header for source/destination IP addresses, col. 14, lines 26-31**].

11. With regard to claim 25, Ford discloses that the corpus of training traffic contains traffic of with a known set of applications [**for example, PeopleSoft, col. 7, line 16; Napster, peer-to-peer sharing software, FTP, and HTTP, col. 9, lines 50-52**].

12. With regard to claim 26, Ford discloses a method for developing a corpus of data for creating set of rules for assigning packets for different QoS treatments [**Figs. 1, 2, and 8, controlling traffic within a network**], comprising the steps of:

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selecting a set of classes [**traffic classes can grouped by application, protocol, IP address, Mac address, port, etc., col. 8, lines 11-15**];

selecting a set of applications [**for example, PeopleSoft, col. 7, line 16; Napster, peer-to-peer sharing software, FTP, and HTTP, col. 9, lines 50-52**], where each of said applications unambiguously belongs to only one of said classes, and where said set is such that every one of said classes is covered by at least one of the application in the set [**policies are based on priority, rate, discard, and redirection, col. 7, lines 28-53; traffic classes are saved and matched with each data flow, col. 8, lines 43-46; traffic classes for known users, unknown users, and quarantined users, col. 9, line 66 to col. 9, line 5**];

selecting a set of traffic features, each definable from computable analysis of a packet or a flow of packets [**bytes/flow per IP address, col. 6, lines 21-24; average rate, peak rate, total inbound/outbound packets, network efficiency, col. 7, line 63 to col. 8, line 1**] ;

capturing traffic in a training network, which traffic belongs to applications that are included in said set [**bytes/flow per IP address, col. 6, lines 21-24; average rate, peak rate, total inbound/outbound packets, network efficiency, col. 7, line 63 to col. 8, line 1**]; and

performing statistical analysis of the captured traffic [**Figs. 1, 2, and 8, measurement engine 140 within bandwidth management device 30 samples data flows measuring bandwidth utilization with respect to a plurality of utilization statistics, col. 7, lines 54-59; each traffic class has bandwidth utilization controls, col. 9, lines 24-27**].

13. With regard to claim 27, Ford discloses that the step of performing statistical analysis comprises the steps of:

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selecting one or more packet attributes [**Figs. 1, 2, and 8, packet processor 130 within bandwidth management device 30 receives packets and checks the packet header for source/destination IP addresses, col. 14, lines 26-31];**

analyzing said captured traffic to create statistical information for each value of said one or more packet attributes, which statistical information pertains to the selected set of features [**bytes/flow per IP address, col. 6, lines 21-24; average rate, peak rate, total inbound/outbound packets, network efficiency, col. 7, line 63 to col. 8, line 1]; and**

classifying each of said values of said one or more packet attributes into one of the classes [**policies are based on priority, rate, discard, and redirection, col. 7, lines 28-53; traffic classes are saved and matched with each data flow, col. 8, lines 43-46; traffic classes for known users, unknown users, and quarantined users, col. 9, line 66 to col. 9, line 5]** based on a selected algorithm that investigates said statistical information for each of said values of said one or more packet attributes [**Figs. 1, 2, and 8, measurement engine 140 within bandwidth management device 30 samples data flows measuring bandwidth utilization with respect to a plurality of utilization statistics, col. 7, lines 54-59; each traffic class has bandwidth utilization controls, col. 9, lines 24-27].**

14. With regard to claim 28, Ford discloses a step of mapping said classes to QoS treatments [**allows regular use or degrades network usage, col. 9, lines 27-32].**



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15. With regard to claim 29, Ford discloses that the step of analyzing to create statistical information creates said statistical information recursively [**sampling occurs every minute or over any desired interval, col. 8, lines 4-10**].

16. With regard to claim 30, Ford discloses that the step of analyzing analyzes traffic of a predetermined time interval of data [**sampling occurs every minute or over any desired interval, col. 8, lines 4-10**].

### *Response to Arguments*

17. Applicant's arguments with respect to claims 1 and 19-30 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Elliott (USP 7,441,267), Method and apparatus for controlling the flow of data across a network interface. This reference contains all the limitations disclosed in Applicants' claims 1 and 19-30.

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19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK A. MAIS whose telephone number is (571)272-3138. The examiner can normally be reached on M-Th 9am-8pm.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 20, 2008

/Mark A. Mais/  
Examiner, Group Art Unit 2419

/Wing F. Chan/  
Supervisory Patent Examiner, Art Unit 2419  
12/22/08